

DISCOVER

The Development of Combat Power and Efficiency

Vol. 29, No. 22 - Friday, Nov. 4, 2005 - Brooks City-Base, TX

Through the Many Facets of Aerospace Medicine



Photo by 1st Lt. David Sanders

1st Lt. Wes Walker of the Air Force Research Laboratory at Brooks City-Base uses a larvae dipper to collect and identify mosquito larvae in a residential area during the aftermath of Hurricane Rita. After collecting a sample from a body of water, entomologists can determine if mosquitoes are using the water to lay eggs and which species of mosquito larvae are in the area.

Brooks entomologists wage war against mosquitoes

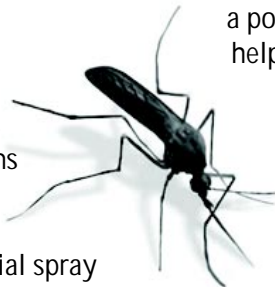
By Elizabeth Castillo
Discovery writer

The aftermath of Hurricane Rita not only brought devastation to homes and buildings in East Texas, but swarms of potentially harmful mosquitoes. Brooks entomologists tracked, counted and, with the help of an aerial spray squad, waged war against the irritating insects.

During an 11-day mission, entomologists surveyed and scoured over two million acres of land in search of mosquito infestation due to the heavy rains brought on by Hurricane Rita.

These entomologists worked rigorously to survey and calculate which areas of East Texas needed to be sprayed for mosquitoes, using techniques that varied from employing high-tech larva testing equipment to simply standing in a mosquito "hot spot" and counting the number of mosquitoes landing on their bodies.

"The Center for Disease Control determined that a certain part of Texas where Rita had hit needed mosquito control," said 1st Lt. Timothy Davis, operational entomology course director. "The CDC determined that four counties were at



a potential high risk and Brooks was happy to help and send its entomologists."

Four East Texas counties – Newton, Jasper, Hardin and Liberty – were surveyed by Brooks' entomologists tracking 500-600 miles a day over a six-day period. After completion of surveillance, the counties were found to be in need of mosquito spraying.

The 910th Airlift Wing, Youngstown Air Reserve Station, Ohio, was already spraying New Orleans after Hurricane Katrina when the flight was reassigned to spray in East Texas. A trio of Brooks entomologists – 1st Lt. Wes Walker and 1st Lt. David Sanders, from the Air Force Research Laboratory, and Dr. Chad McHugh, Air Force Institute of Operational Health – were sent to be ground support for the aerial squad.

"After Hurricane Rita came ashore in Southeastern Texas, it really did some damage on the infrastructure," said Lieutenant Walker. "A lot of the houses had roofs taken out and windows broken, so even if they were habitable, the mosquitoes were still a factor. Not only are mosquitoes a nuisance, they are carriers of diseases."

Mosquitoes/Page 3

Air Force climate survey: AFMC leaders need opinions

By 1st Lt. Lea Ann Chambers
Air Force Materiel Command PA

Air Force Materiel Command leaders are relying on all Airmen in the command to take the Air Force climate survey. They hope for comprehensive feedback that will lead to improvements throughout the command.

Survey respondents are asked to assess factors that affect work environments and to give feedback anonymously to their leaders about the health of their organizations. The survey is available to AFMC's more than 82,000 military, civilian, Air National Guard and Air Force Reserve members. According to the climate survey Web site, research indicates that feedback from all levels of rank and pay grade is required to effectively create positive change.

"Our Secretary and Chief of Staff are listening, I am listening, and your center and wing commanders and directors are listening," said Gen. Bruce Carlson, AFMC commander. "Use the survey to tell us what we are doing right, but more im-

portantly, how we can get better, especially in areas with the greatest impact - mission accomplishment, retention, recognition, job satisfaction, quality of life and more."

"Your inputs are integral in our change management strategy," said Mrs. Barbara Westgate, AFMC executive director. "In return for your honest and direct feedback we get the information we

need to turn your inputs into actionable results."

Results in AFMC were evident after the 2003 climate survey. Comments from that survey resulted in improvements for the command, including the Mission-Driven Mentoring program, Air Force civilian fitness program, targeted leadership training initiatives and Junior Force Councils established command-wide to address the concerns of the command's newest members. The survey takes approximately 30 minutes to complete.

"I'll personally ensure we turn your inputs into actionable results to improve and sustain effective performance," General Carlson said.

AIR FORCE
CLIMATE SURVEY:
www.afclimatesurvey.af.mil

Final NSPS regulations submitted

The Department of Defense and Office of Personnel Management announced submission of final regulations for the National Security Personnel System to the Federal Register.

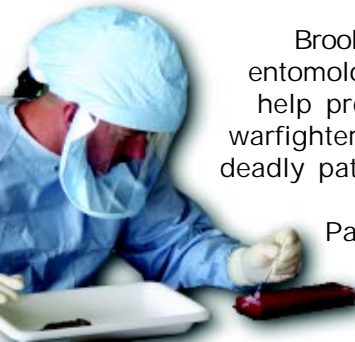


The final regulations define the rules for implementing a new human resources system that will affect about 700,000 DoD civilian employees regarding pay and classification, performance management, hiring, workforce shaping, disciplinary matters, appeals procedures and labor-management relations.

"To transform the way DoD achieves its mission, it must transform the way it leads and manages its people who develop, acquire, and maintain our nation's defense capability," said Gordon England, acting deputy secretary of defense, who also serves as

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Brooks helps those wanting to kick the habit through the Great American Smokeout
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AFIOH helps to develop new ways to detect avian flu virus
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Articles may be submitted by email to Kendahl.Johnson@brooks.af.mil or to Discovery@brooks.af.mil.

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Veteran's Day: remembering a priceless gift

By Rudy Purificato

311th Human Systems Wing

It can not be fully measured in medals, praise, moments of silence or parades. It can not be completely defined as patriotism, commitment, courage or self-sacrifice.

Its face mirrors the collective soul of our nation that owes its continued existence to the sons and daughters who have served within the profession of arms.

Tributes to it, commemorated again by another Veterans Day, are symbolically meaningful and well-intentioned. Yet the fleeting nature of a nation's gratitude does little to pay back a debt of great value.

This debt has grown daily, over generations, as military men and women serve in dangerous far off lands, or closer to home in perilous places both manmade and natural. The debt exceeds our limited understanding of countless acts that gives it form, substance and worth as a priceless gift.

Evidence of it is staggering and generational. See there on old tombstones the weatherworn epitaphs: soldier unknown, died during yellow fever epidemic in so-and-so year. See further the artifacts of families perpetually mourning loss. Yellowed letters on official stationery convey condolences for the accidental death of the departed from motor vehicle or aircraft crash, tropical disease, freak incident or a fate for which no explanation can ever be comforting.

Many of those who have survived live with the scars of having served — visible in wheelchairs, missing limbs and even homelessness; invisible within the minds of some who are missing part of themselves, the lost innocence that disappears forever through over-exposure to the reality of a hostile and unforgiving world.

This priceless gift is life itself, cut short or compromised by ill health. It has been given willingly without much complaint, even onto death. It is honorably bestowed to us as a gift that always fulfills a never-ending price for our freedom.

A game of negotiation

(Editor's note: This article is part of a continuing series of articles highlighting the best board game alternatives for classic yet tired games like Monopoly, Clue and Risk.)

By Kendahl Johnson

Discovery editor

Part of the lasting appeal of games like Monopoly is the player interaction, specifically the ability, even necessity, of negotiating and trading. Traders of Genoa is a German import that is a dedicated negotiation game. As the name suggests, players take on the role of traders in the Italian city of Genoa. They fulfill orders, deliver messages and take ownership of important buildings in the city.

Ultimately, Traders of Genoa is a trading game. But in order to trade, players must have something to trade; and the way in which goods are distributed here is clever. At the beginning of a player's turn, two dice are rolled. These provide the coordinates on the map of the town for where the trade tower will start the turn. The trade tower is a stack of five wooden disks the current player can move to adjacent spaces in the town. But when moved, one disk is always left behind in the last space. So a player can visit up to five spaces.

Building spaces allow players to take certain actions, including receiving various commodities, orders, messages to deliver, or special abilities. The current player may wish to take the action himself or allow another player to take the action for a fee. And since the particular path the trade tower takes in a turn can matter, players may wish to bargain with the current player in order to entice him to take one path rather than another.

The goal is to accrue the most ducats (game currency). The game offers several ways to make money. One can collect commodities and deliver them to fill small orders (a single, specified commodity) for a modest sum or to fill large orders (three specified commodities) for somewhat more. Or one can deliver messages, or buy buildings and collect revenue when other players use the services provided or collect prestige in the community that can be translated into money at the end of the game.

Another way to make money is by "selling" the right to take an action at the various buildings on the game board. Each turn, all players may take one action, not just the active. Through skilled negotiations, players suggest, encourage, cajole or bribe the active player to move to a specific place on the board.

Trading: This game is all about trading. Negotiations happen multiple times every turn and are so small that single deals aren't what make or break a player. It's the sum of all negotiations that determine the outcome. There is the possibility for the game to get bogged down in the trading. There is the temptation of spending too long trying to squeeze maximum value out of a turn, when simple negotiations and decisive actions equally suffice. But if you don't waste time trying to make the ultimate trade, the game flows nicely.

Player interaction:

One of the best aspects of this game is that there is really no down time. Each player is haggling and trading every turn. At times, everyone is encouraging the active player to move in a different direction, which makes for some intense

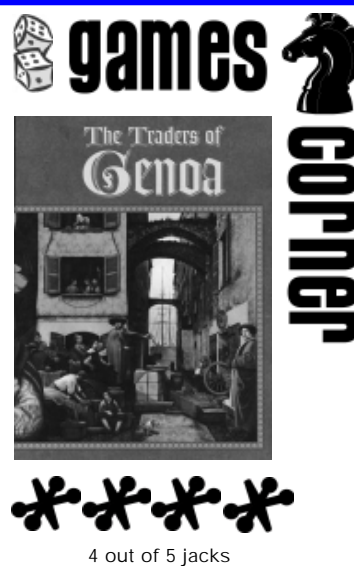
negotiations. Because the strategies are subtle and a solid strategy is not paramount for victory or for having a good time, I would categorize this game more as a social game than a brain-burning strategy game.

Paths to Victory: There are 20 different buildings to visit in the town, so there are a lot of ways to make money. This leads to many different paths to victory. There is no sure-fire winning strategy and players' strategies are dynamic -- changing several times throughout the game as different opportunities arise. The mechanics of the game are not complex, but there is still plenty of complexity in strategic decision making. Plus, luck plays virtually no role in this game, a bonus for games players who don't enjoy losing due to bad rolls of the dice.

Drawbacks: Although I thoroughly enjoyed Traders of Genoa, I still had a few quibbles with the game. At the forefront is the game length. Games last approximately two hours. I don't mind long games in general and two hours certainly isn't a marathon, but 120 minutes of pure negotiation might be a bit too much for some. As players learn the intricacies of the game, game time will be shortened. And when a player's turn starts in the center of the game board (by roll of the dice or by use of a special card), one fewer round is played, which could also decrease game time.

Another drawback is that beginners will have a distinct disadvantage to players who have played previously, because the actual value of an action is a little vague. Because you are often spending money to bribe a player, you don't always know the real value of your action. For example, I might pay 10 ducats to use the action to gain copper and another 10 ducats to pick up a special card that let's me trade one for one. I trade my copper for a silk and pay another 10 ducats to bribe the active player to go to the harbor so I can deliver that silk and fulfill a small order card which pays 40 ducats. Suddenly, I remember that I paid someone else 10 ducats to go to the city hall, where I could pick up that small order card in the first place. I just spent four actions breaking even.

These are minor quibbles. The second drawback might actually increase replayability, as it will be fun to learn just how to maximize profits and develop a strategy that works. Overall, Traders of Genoa is a fun game where there is no downtime for players and plenty of interaction. I recommend it, but only if you like negotiation games.



4 out of 5 jacks



Aerial spray units support team of medical entomologists in battle against mosquitoes

Continued from page 1

Along with high-tech testing methods used to determine the amount of larva sitting in pools of water and traps set to catch and later count mosquitoes, entomologists used a less technical, yet painful approach of determining the need for mosquito control.

The entomologists would stand for one minute in a location where mosquitoes are more likely to inhabit, and wait to see how many mosquitoes landed on their clothing.



Photo by 1st. Lt. Wes Walker

Air Force Institute for Operational Health's Dr. Chad McHugh is performing the painful task known as a "landing count" survey. This type of survey is performed by standing still in an area heavily populated with mosquitoes and counting how many land on or bite you in a specified amount of time. The activity is particularly dangerous in areas with established mosquito-borne diseases like the West Nile virus.

"Anything more than 10 mosquitoes is bad, and in a lot of the areas, there were between 30 and 80," said Lieutenant Walker.

After determining the need for mosquito control, the team of entomologists was ready for the next mission of being ground support for the aerial squad. The team was responsible for relaying wind readings and because the planes fly as low as 200 feet, the entomologists also had to make the pilots aware of high power lines and other towers.

The damage to the infrastructure caused some unintended obstacles for the entomologists as they tried to communicate with the aerial squad who was flying out of Duke Field, Fla.

"We would take wind readings for them and call it back to their headquarters, who would then radio it up to the plane that was over us," said Lieutenant Walker. "Actually, when we were talking to the plane, they may be flying over us but we were calling Florida and Florida was calling back even though the

plane was within eyesight of us."

The pesticide used in the spraying was Dibrom concentrate, which is absolutely harmless to humans or animals yet extremely effective in killing adult mosquitoes. Though the solution is not harmful to plants, animals or humans, it is potentially dangerous towards bees and bee hives.

While surveying the areas



Photo by 1st. Lt. Wes Walker

An aerial spray unit dispenses a pesticide over a mosquito-infested area. Mosquitoes threaten public health safety because they may carry potentially deadly viruses, like the West Nile virus.

to be sprayed, the entomologists found that a man living in an area that was to be sprayed had a bee hive colony. They quickly used their communication sources to contact the plane that was already in flight to make them aware of the bee farm. With great precision, the plane was able to release the trigger, and spare the hives.

Upon completion of the spraying mission, the team of entomologists had to again survey the sprayed areas to test the success of the spraying.

"We knew what it looked like before the spray, and then we would go see what it looked like after," said Lieutenant Walker. "It was complete success across the board, dropping down to zero and one mosquito landing on you

in places where (previously) they were lifting you off the ground."

As the mission came to a successful halt, the efforts of the Air Force and Brooks entomologists were seen in the fewer amounts of flying nuisances in the sprayed areas.

The four counties will now be able to continue to build and restore their towns without the added irritation of swarming mosquitoes potentially carrying harmful diseases.

"The aerial spray mission is very important in any sort of relief effort and we are very lucky to have that in the United States," said Lieutenant Davis. "That's why we are entomologists in the Air Force – there to help out. It is good to get involved in those things."



AFMC command chief lauds Brooks

By 2nd Lt. John Chattaway
311th Human Systems Wing/PA

The United States Air Force is constantly changing. From an Expeditionary Force, to Base Realignment and Closure, and now Force Shaping, the Air Force is in a constant state of flux.

But through all the change, the mission stays the same: Fly, Fight, Win.

According to Air Force Material Command Chief Master Sgt. Jonathan Hake, everyone must be able to understand how their job ties into the overall Air Force mission.

“Sometimes that connection is clear cut while other times it’s a little fuzzier,” Chief Hake said. But he hopes to make the AFMC

connection very clear.

With the recent replacement of Gen. Gregory “Speedy” Martin as the AFMC commander with Gen. Bruce Carlson, Chief Hake doesn’t see any significant changes within the AFMC.

“General Martin has put us on a footing to deliver war-winning capabilities on-time and on-cost,” Chief Hake said. “General Carlson will focus on continuous improvement of the war-winning capabilities on-time and on-cost but now at a better value.”

Chief Hake emphasized the biggest thing General Martin did during his time as AFMC commander was bring a tremendous amount of respect to the command throughout the Air Force.

He made people see what the AFMC brought to the fight.

“In the case of Brooks City-Base, how we train people through USAFSAM and how we look at human effectiveness and test our systems to make sure the human element is taken into effect is our major contribution to the fight,” Chief Hake said.

The Chief recently visited Brooks to congratulate the base on its UCI results, handed out a few coins, but mainly came to get feedback from Brooks’s employees on their feelings toward BRAC, the UCI and any other concerns he may have been able to address.

“UCIs can create some level of stress and anxiety, and my concern was that anxiety may

couple with the uncertainty of BRAC, and I wanted to know what people were thinking,” Chief Hake said.

The Chief commended Eric Stephens, 311 HSW director, Col. Penny Giovanetti, 311 HSW deputy director and Command Chief Master Sgt. Reggie Williams for the outstanding job they have done during this transition.

“I’m confident Mr. Stephens, Colonel Giovanetti and Chief Williams have a good finger on the pulse of Brooks City-Base,”

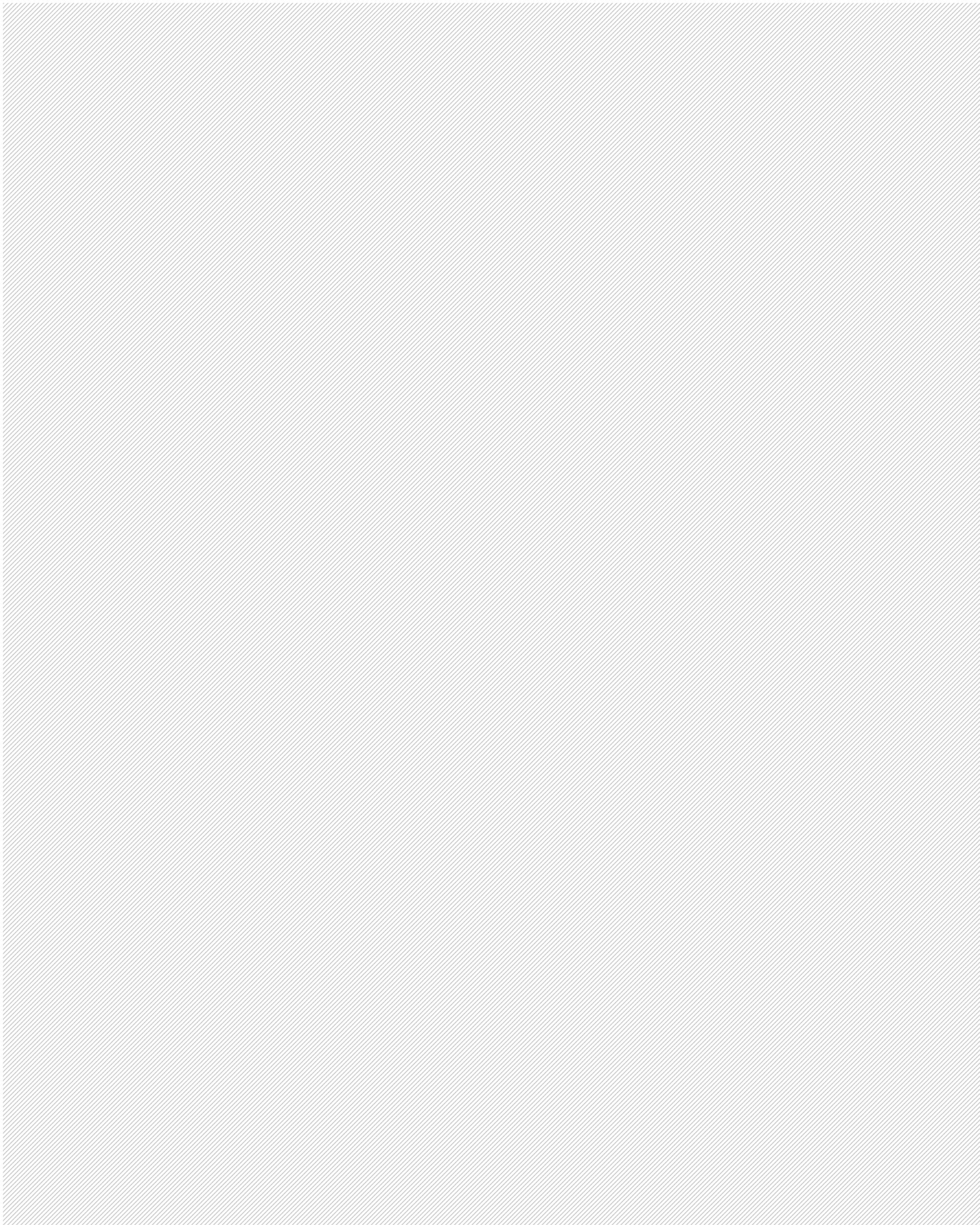
Chief Hake said. “My experience with BRAC has been to understand we have an extremely flexible force that needs to be kept informed in order to accomplish the mission.

He went on to add, “People need to understand the mission is not going away and the change won’t happen overnight. It’s always a pleasure to come to Brooks,” Chief Hake said. “This is not a typical base, but the professionalism has always been the same.”



Photo by Staff Sgt. Brandy Bogart

During his visit to Brooks City-Base, Chief Hake handed out coins to the Military Equal Opportunity office and congratulated them on receiving an outstanding rating during the 2005 UCI. From left to right, 311 HSW Command Chief Reggie Williams, Staff Sgt. Amanda Sutton, Master Sgt. Michael McCoy, and AFMC Command Chief Jonathan Hake.





Former Brooks scientist, aviation pioneer inducted into Science Hall of Fame

By Rudy Purificato
311th Human Systems Wing

Former U.S. Air Force School of Aerospace Medicine scientist Dr. Raymond Damadian and the late Brooks Field aviation pioneer Col. Carl Crane were inducted into the San Antonio Science and Technology Hall of Fame Wednesday during the 2nd Annual Stars of Innovation ceremony at the Crowne Plaza Hotel.

Dr. Damadian and Colonel Crane joined four other San Antonio innovators as 2005 inductees. Former USAFSAM scientist Dr. John Taboada was inducted last year as part of the inaugural class of 11.

Founded by the San Antonio Technology Accelerator Initiative network, the hall has become the springboard for national recognition. Dr. Taboada, the physicist whose laser optical bioeffects

studies led to LASIK surgery development, has since been nominated by SATAI for induction in the National Science & Technology Hall of Fame in Akron, Ohio.

Dr. Damadian was selected for his pioneering work in magnetic resonance imaging. While working for USAFSAM's Physiological Chemistry Section from 1965-1967, his work in salt and water biophysics gave rise to his idea for developing the NMR body scan. This nuclear magnetic resonance technology had been previously used only as a lab-based tool to chemically analyze inorganic substances.

During a 1989 address at USAFSAM, Dr. Damadian credited his work here that led

to his invention in 1970 of the world's first Magnetic Resonance Imaging medical scanner. Named 'Indomitable,' the device initially developed to detect cancer, is at the Smithsonian Institution. "I think I should like to tell you that I always felt that the initial roots of the creation of MRI began here at the School of Aerospace Medicine," he said in his 1989 address.

After separating from the Air

Force, the former captain founded the FONAR Corporation in Melville, Long Island, N.Y. Since then, Dr. Damadian has pioneered the development of many MRI technologies, including the world's first upright MRI scanner capable of scanning patients upright while standing or sitting.

In 1988, President Ronald Reagan awarded him the National Medal of Technology for "independent contributions in conceiving and developing the application of magnetic resonance technology to medical uses, including whole-body scanning and diagnostic imaging." In 2003, Dr. Damadian was nominated for the Nobel Prize in physiology/medicine.

San Antonio native Colonel Crane, who died in 1982, was posthumously honored for his development at Brooks Field of the world's first flight simulator. During his work here with aviation pioneer Col. William Ocker, Colonel Crane redesigned the antiquated Ruggles Orientator the Army Air Corps used to demonstrate to pilots some disorientating flight-induced physiological effects. Adapting bank, turn and course indicators to this rudimentary device, he developed and patented in 1934 a flight simulator that helped train a generation of pilots.

Edwin Link, secured a license on Col. Crane's patent and paid the inventor royalties. While the Link trainer became the standard for World War II flight simulators, it was Col. Crane's vision that led to the evolution of pilot training devices that helped aviators fly safely and accurately.



Dr. Raymond Damadian



Col. Carl Crane



ERIC STEPHENS
311th Human Systems
Wing director

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536-2222

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311th Services Division.....	536-2545	Brooks City-Base AF Project Office.....	536-3655
59th Medical Squadron (Clinic).....	536-4715	Brooks Development Authority.....	536-5366

Randolph's air show takes flight Nov. 5-6

RANDOLPH AIR FORCE BASE — Two of the military's premier demonstration teams will headline a spectacular aerial lineup Nov. 5-6 during Randolph's 75th Anniversary air show. The U.S. Air Force Thunderbirds aerial demonstration team and the U.S. Army Golden Knights parachute jump team are the main attractions in the air show lineup that also features the Randolph-based Air Education and Training Command T-6A Texan II West Coast Aerial Demonstration Team and more than a dozen other modern and vintage military and civilian acts. The air show runs from 9 a.m. to 4 p.m. on both days. Admission and parking are free, and the event is open to the public. "The last time the Thunderbirds performed here was in 2001, so we're very excited about having them back to the Randolph Air Show," said Lt. Col. Ron Simmons, air show director. "We will also have special appearances by civilian aerobatic stars and the Commemorative Air Force will perform its famous reenactment of the attack on Pearl Harbor." With the impressive lineup of flying acts taking shape, the colonel pointed out the air show will also include plenty of action at ground level. "The air show is a family event," Colonel Simmons said. "There will be a full schedule of flying activities and an equally impressive lineup of events on the ground."

More than 40 military and civilian aircraft are scheduled for static display and show organizers are expecting a variety of military related ground exhibits including "Sonic Boom Flights," which will provide two M-4 flight simulation ride capsules in a 40-foot trailer. There are five different ride selections for visitors to choose from, including the P-51 Mustang and the F-16 Falcon. Each ride simulates takeoffs and landings and includes at least three 360-degree rolls. Several special activities are planned for children, including "Stepping Stones to Aviation," a miniature airport complete with pedal-powered planes. "The miniature airport features pedal-powered models of aircraft such as the F-117 Stealth," said Shelta Reese, air show coordinator for Services activities. "Students learn airport terminology and procedures, as well as pre-flight inspections and communications protocols. Upon completion of their first successful flight, each child receives a flight certificate." The children's area will also feature other interactive activities such as a 35-foot bungee run, a 40-foot giant slide, an inflatable obstacle course Thunder Bird bounce, Galaxy Explorer inflatable, train ride and Jay Jay the Jet attraction. For more details about the event, visit the air show Web site at www.randolph.af.mil/airshow.

FAMILY SUPPORT CENTER

SPONSOR TRAINING

Nov. 8 — 10 - 11 a.m., Bldg. 537

In accordance with AFI 36-3011, sponsor training is mandatory of all first-time sponsors and those who have not sponsored within the past year. However, others are more than welcome to attend. Learn about tools and resources available for sponsors.

SEPARATION AND RETIREMENT

Nov. 9 — 9 a.m. - 4 p.m., Bldg. 537

This is a mandatory class for active military personnel who are retiring or separating within 120 days. Topics covered are Pre-Separation, Veterans Benefits, Survivors Benefit Plans, TRICARE, and Financial Planning for Transition. Spouses are encouraged to attend.

SMOOTH MOVE

Nov. 15 — 12:30 - 3:15 p.m., Bldg. 537

PCSing? Hear briefings from TMO, Legal, Clinic, Finance, Housing, and the Family Support Center and ask questions. Open to all active duty mem-

bers, DoD civilians and spouses. Overseas move has its own set of challenges and opportunities. Learn more about OCONUS PCS by staying after for the PCS Overseas class.

PREDEPLOYMENT BRIEFING

Nov. 29 — 1 - 2 p.m., Bldg. 537

Mandatory briefing addresses issues pertaining to deployed service members and their families. Pre-deployment briefings are held monthly on the last Tuesday of the month. Appointments are necessary.

OPERATION HERO MILES

Do you have unused frequent flyer miles? Consider donating those miles to Fisher House. In cooperation with a dozen United States airlines and Fisher House, this program allows troops stationed in Iraq or Afghanistan to fly home on leave for free. It also gives family members of wounded servicemen and women free plane tickets to visit loved ones recovering at military hospitals. Go to www.heromiles.org for information.

To register for a class, call 536-2444



New technology dazzles aggressors

By Eva Blaylock
AFRL Directed Energy Directorate Public Affairs

A laser technology being developed by Air Force Research Laboratory employees at Kirtland Air Force Base, N.M., will be the first man-portable, non-lethal deterrent weapon intended for protecting troops and controlling hostile crowds.

The weapon, developed by the laboratory's Directed Energy Directorate, employs a two-wavelength laser system and is the first of its kind as a hand-held, single-operator system for troop and perimeter defense. The laser light used in the weapon temporarily impairs aggressors by illuminating or "dazzling" individuals, removing their ability to see the laser source.

The first two prototypes of the Personnel Halting and Stimulation Response, or PHaSR, were built at Kirtland last month and delivered to the laboratory's Human Effectiveness Directorate at Brooks City Base and the Joint Non-Lethal Weapons Directorate at Quantico, Va. for testing.

"The future is here with PHaSR," said program manager Capt. Thomas Wegner. Captain Wegner is also the ScorpWorks flight commander within the Laser Division of the directorate.

ScorpWorks is a unit of military scientists and engineers that develops laser system prototypes for AFRL, from beginning concept to product field testing.

The National Institute of Justice recently awarded ScorpWorks \$250,000 to make an advanced prototype that will add an eye-safe laser range finder into PHaSR. Systems such as PHaSR have historically been too powerful at close ranges and ineffective but eye-safe at long ranges. The next prototype is planned to include the addition of the eye-safe range finder and is planned for completion in March 2006.



Air Force photo
Capt. Drew Goettler, of the AFRL Directed Energy Directorate, demonstrates the Personnel Halting and Stimulation Response, or PHaSR, a non-lethal illumination technology. The technology is the first man-portable, non-lethal deterrent weapon intended for protecting troops and controlling hostile crowds.



Project CHEER kicks off second year

Hundreds of Brooks employees gathered at the Base Picnic Grounds Oct. 28 to celebrate the beginning of the second year for Project CHEER.

In addition to barbecued hot dogs and hamburgers, the crowd enjoyed several sporting events, including what has now become a Project CHEER kick off tradition — sumo wrestling.

Since its inception in 2004, Project CHEER has exceeded expectations, providing morale building events and fun for the Brooks' community.

Through awareness and participation, Project CHEER hopes its second year will be another fun and effective way in bringing together and boosting morale for the Brooks community.



Photo by Kendahl Johnson

Mr. Eric Stephens (above), director of the 311th Human Systems Wing, donned a sumo wrestling outfit and squared off against Col. Sean Scully (left), commander of the Air Force Research Laboratory, at the second annual Project CHEER kick off celebration at the Base Picnic Grounds. The aim of Project CHEER build morale for the Brooks community.



Photo by Tech. Sgt. Alfonso Ramirez Jr.



New Air Force ‘bug’ team helps safeguard warfighters, public health

By Rudy Purificato
311th Human Systems Wing

They don’t ‘kill bugs dead’ as the advertising slogan suggests, but they’re finding them a lot faster now before these deadly microorganisms can cause havoc through disease outbreaks.

Air Force medical entomologists at Brooks City-Base have developed an innovative capability that potentially could have a profound impact on helping safeguard warfighter and civilian public health.

Unofficially called the Air Force medical entomology team, this mobile group of scientific investigators are pioneering more effective and timely field collection methods for detecting deadly pathogens such as plague and anthrax.

“Air Force entomologists have been, historically, interested in insects and how they pose a risk to military personnel,” said 1st Lt. Wes Walker, an Air Force Research Laboratory medical entomologist. However, until three years ago, the Air Force did not have a rapid response team for investigating arthropod-borne disease outbreaks.

The potential for bioterrorism following the Sept. 11, 2001 terrorist attacks led former U.S. Air Force School of Aerospace

Medicine medical entomologist Capt. Keith Blount to propose the creation of this highly specialized mobile team. The team, configured depending upon the mission, has included a combination of medical entomologists, public health officers, public health technicians and molecular biologists.

The team is designed to support military and civilian public health efforts to limit the spread of naturally occurring animal and insect-borne disease, as well as provide another military capability in mitigating the potential health effects posed by bioterrorism.

Lieutenant Walker said the U.S. Army Medical Research Institute of Infectious Disease at Fort Derrick, Md. has identified potential arthropod-borne bio-weapons. Among the most deadly diseases on the list is plague, the flea-infected rodent-born ‘Black Death’ that wiped out half the European population during the Middle Ages; the mosquito-born yellow fever and dengue hemorrhagic fever; anthrax; and tularemia, the tick and rodent-born disease also called “Rabbit or Hunter Fever.”

Historically, the medical response to such outbreaks involves bioengineers sampling air,

soil and water in concert with human vaccinations and infected animal quarantines initiated by the public health community. However, there exists no capability to counter secondary outbreaks in undomesticated animals such as rodents, raccoons and squirrels. “You can’t find and treat every mouse. That’s where this team comes in. We understand animal (an insect) biology and behavior,” Lt. Walker said.

With just a great idea and little else, Air Force medical entomologists here began to develop this rapid response team in 2002. Trained in animal and insect behavior and how these creatures transmit disease to humans, these Air Force specialists took a giant leap forward in developing their new capability through collaboration with the Centers for Disease Control.

“We contacted Dr. Ken Gauge, a national plague expert who is at CDC-West in Fort Collins, Colo. We modeled our response package after theirs,” Lieutenant Walker said. Besides learning about the equipment CDC uses during disease surveillance operations, the Brooks team learned how the CDC responds to outbreaks. However, they wanted to improve upon CDC operational methods in field sample collection.

“They collect tissue samples, pack it in dry ice and return it to their labs for testing,” Lieuten-

ant Walker said, explaining that this method is not real-time analysis at infected areas.

The team has since achieved a milestone in the real-time field detection of animal-borne disease when they used the Ruggedized Advance Pathogen Identification Device for the first time to detect plague in environmental samples.

The team developed their skills further thanks to Jim Harrison, an Army entomologist and hantavirus expert who works at the Center for Health Promotion & Preventive Medicine-West at Fort Lewis, Wash. Mr. Harrison’s techniques for detecting and collecting samples of hantavirus, the potentially fatal disease spread by mice feces that infects the lungs, helped team members immensely.

During the past three years, this Air Force team has deployed to various locales to conduct disease surveillance surveys that have led to remediation countermeasures.

They’ve tested their capability in peacetime at stateside sites as well as internationally in El Salvador and Honduras. Their capability evolved to include wartime disease surveillance operations in Iraq. As a conse-

quence of their collaborative work with the Army, in-theatre preventive measures were taken that contributed to fewer American military service personnel contracting this potentially fatal disease that causes skin deformities and attacks vital organs.

“As a team, we’ve developed a capability built on two years of peacetime surveillance. We’re honing our skills in extracting pathogens out of the environment,” Lt. Walker said. From this initiative’s inception, the challenge has been fulfilling the team’s unofficial motto “from burrow to (lab) bench.”

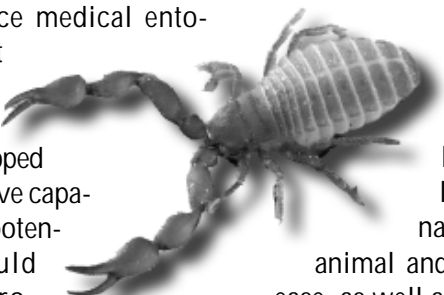
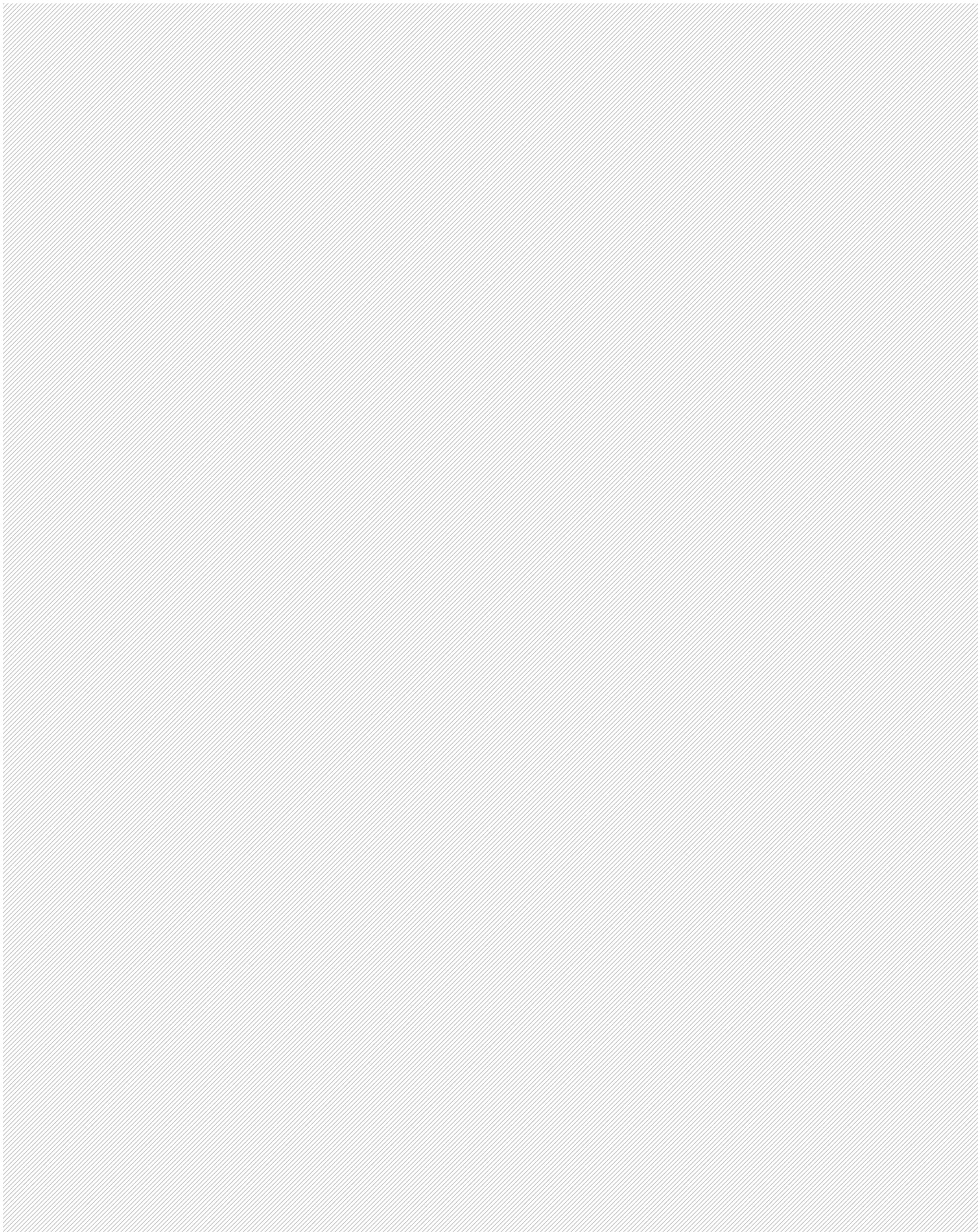


Photo by Amy Heathman

1st Lt. Wes Walker takes a serological sample from a dead animal while looking for anthrax.





Payday loans: a poor investment

By Capt. Nicholas Doukas
Brooks Legal Office

Recently, energy prices have sky-rocketed, food prices have risen and inflation has steadily increased. The result is consumers now have less spending money for the fun things in life than they did even just a few months ago. And now the holiday season is upon us. Gifts for family and friends can be expensive. With budgets being squeezed, there is a temptation to take an easy-obtained payday loan.

A payday loan is a loan based on a future paycheck. Usually, a borrower writes a personal check payable to the lender for the amount he or she wishes to borrow, plus a fee. The lender gives the borrower the amount of the check minus the fee. The lender then holds the check for two weeks before cashing it.

The idea is that the lender gives you a two-week loan, essentially cash today that you do not have, in exchange for the fee. The fees are based on the amount of the loan and are incredibly high.

A short drive around the Brooks City-Base neighborhood finds dozens of places offering seemingly free cash to help you stretch your budget. These businesses go by different names, but all do the same thing — offer payday loans. Borrower beware.

A survey of local and internet payday loan companies found that on average the fee to borrow a \$100 is \$20. That fee calculates out to an astounding 520 percent in annual interest. Not only are you paying a ridiculous amount in interest, but you have already spent \$100 of your next paycheck. This creates a difficult situation; if you need additional cash now, you will likely need more cash in two weeks because you are effectively working for a lower paycheck.

The payday loan companies then have you



Six alternatives to payday loans

- Shop for credit offers with a lower APR
- Request additional time from your creditors to pay bills
- Make a realistic budget and start a savings account
- Ask for a pay advance from your employer
- Consider a small loan from family or friends

hooked. They will offer not to cash your previous check for another fee or offer you another payday loan. In our example, if you decide to let the lender hold your \$100 check another two weeks before cashing, you will pay another \$20 fee. Now you have paid \$40 in fees for \$100 out of your paycheck.

There are many options to consider before resorting to payday loans.

— Shop for credit carefully. Look for credit offers, whether credit cards or loans, with the lowest annual percentage rate. Also, ask about fees and finance charges associated with any credit. All lenders must disclose the total cost of every credit offer.

— Ask creditors for more time to pay your bills. Find out what the creditors will charge for this service – as late charges, higher interest, or additional finance charges.

— Find out if you have, or can get, overdraft protection on your checking account. If you are regularly using most or all of the funds in your account and if you

make a mistake in your checking account records, overdraft protection can help protect you from further credit problems. Find out the terms of the overdraft protection.

— Make a realistic budget. Avoid unnecessary purchases, even small daily items. Those costs add up. Also, build some savings. Small deposits add up quickly and can help to avoid borrowing for emergencies, unexpected expenses or other items. If you need help working out a debt repayment plan with creditors or developing a budget, contact Family Support at 536-2444.

If you believe you have been a victim of credit fraud or unfair lending, contact the Brooks Legal Office at 536-3301.

Legal Assistance Hours: If you need a power of attorney, will or other legal assistance, please call the Brooks Legal Office at 536-3301. Legal assistance is available to active duty and retired military personnel and their dependents. Appointments are available Tuesdays and Wednesdays from 8:30-11:30 a.m. and walk-ins are welcome Thursdays from 1:30-2:45 p.m. The legal office offers notary services during duty hours Monday through Friday on a drop-in basis. Those with short notice deployment or other emergency may call or walk-in to the Legal Office any time.



DOD submits NSPS regulations to Federal Register

Continued from page 1

the DoD senior executive for NSPS. “Our civilian workforce is critical to the department’s success and NSPS will provide a modern, flexible system to better support our unpredictable national security environment.”

Brooks employees will transition to NSPS as early as next April, according to Eric Dilworth, director of the 311th Mission Support Division.

“We are offering numerous training classes for employees and managers to help make their transition as smooth as possible,” Mr. Dilworth said. “We encourage employees to watch for more information we will share with them as soon as it becomes available.”

NSPS will improve the way DoD hires, assigns, compensates and rewards its employees, while preserving the core merit principles, veterans’ preference and important employee protections and benefits of the current system.

The regulations are the result of a broad-based effort that included input from DoD employees, supervisors, managers, senior leaders, union representatives, congress and public interest groups. As a result of input received from the DoD unions as well as more than 58,000 public comments, DoD and OPM leadership have made a number of changes to the proposed regulations.

“Preserving the fundamental rights of our employees was a critical factor throughout the design process,” Mr. England said. “We believe the regulations strike a balance between employee interests and DoD’s need to accomplish its mission effectively and to respond swiftly to ever-changing national security threats.”

The implementation plan for NSPS includes a multi-year schedule. The Labor Relations System will be implemented for all bargaining unit employees shortly after the enabling regulations are in effect. The Human Resources System and the appeals process will be phased in once implementing issuances are in place and training is underway. Spiral One of the transition to NSPS, comprising approximately 270,000 employees, will be phased in over the next year.

Spiral 1.1 organizations, with about 65,000 employees, should transition employees to new performance standards beginning in early 2006. These organizations will fully convert to NSPS after employees receive the January 2006 general pay increase and within grade buy-ins. As a result, no employees will lose pay upon conversion to NSPS.

Spiral 1.2 organizations will begin operating under the Human Resources and appeals system in spring 2006, with Spiral 1.3 conversions occurring later in the year. Subsequently, the rest of the eligible DoD civilian workforce will be incrementally phased-in, making necessary adjustments to NSPS as it goes forward.

“Implementing the regulations will require a great deal of training and communications with employees to get this right. OPM stands ready to provide the support and technical assistance needed to ensure the success of the NSPS system,” said Linda Springer, director of the Office of Personnel Management.

HOW TO GET NSPS EDUCATED

Officials from the Department of Defense’s National Security Personnel System recently updated the department’s website. The updates offer employees and managers a variety of tools to learn about NSPS.

In addition to recent press releases added to the site, officials offer a link to the Federal Register notice, posted on Nov. 1. Also, Deputy Secretary of Defense Gordon England sent a letter to all DoD civilian personnel announcing that the NSPS regulations are finalized. A link to his letter is posted on the website.

Employees and supervisors will find fact sheets, frequently asked questions and brochures about NSPS when they access the website. The easiest way to view the DoD website is to access the Brooks homepage at www.brooks.af.mil and click on the NSPS link on the right column. The new page will offer a link to the DoD website. Simply click on that link to see all the DoD page has to offer.

www.cpms.osd.mil/nsps



A
LOOK
at
BROOKS

What is the
strangest
thing you
have eaten?



Valinda Grimes
AFRL

Octopus in Greece — it was like putting rubber in your mouth. When you bit into it, it popped all over.



Melissa Ruiz
AFRL

Pigs head — I even saw it wrapped in foil and being cooked in a hole in the ground.



Senior Airman
Naomi Delgado
AFRL

When I was five or six, my friends dared me to eat my Sea Monkeys, so I did!



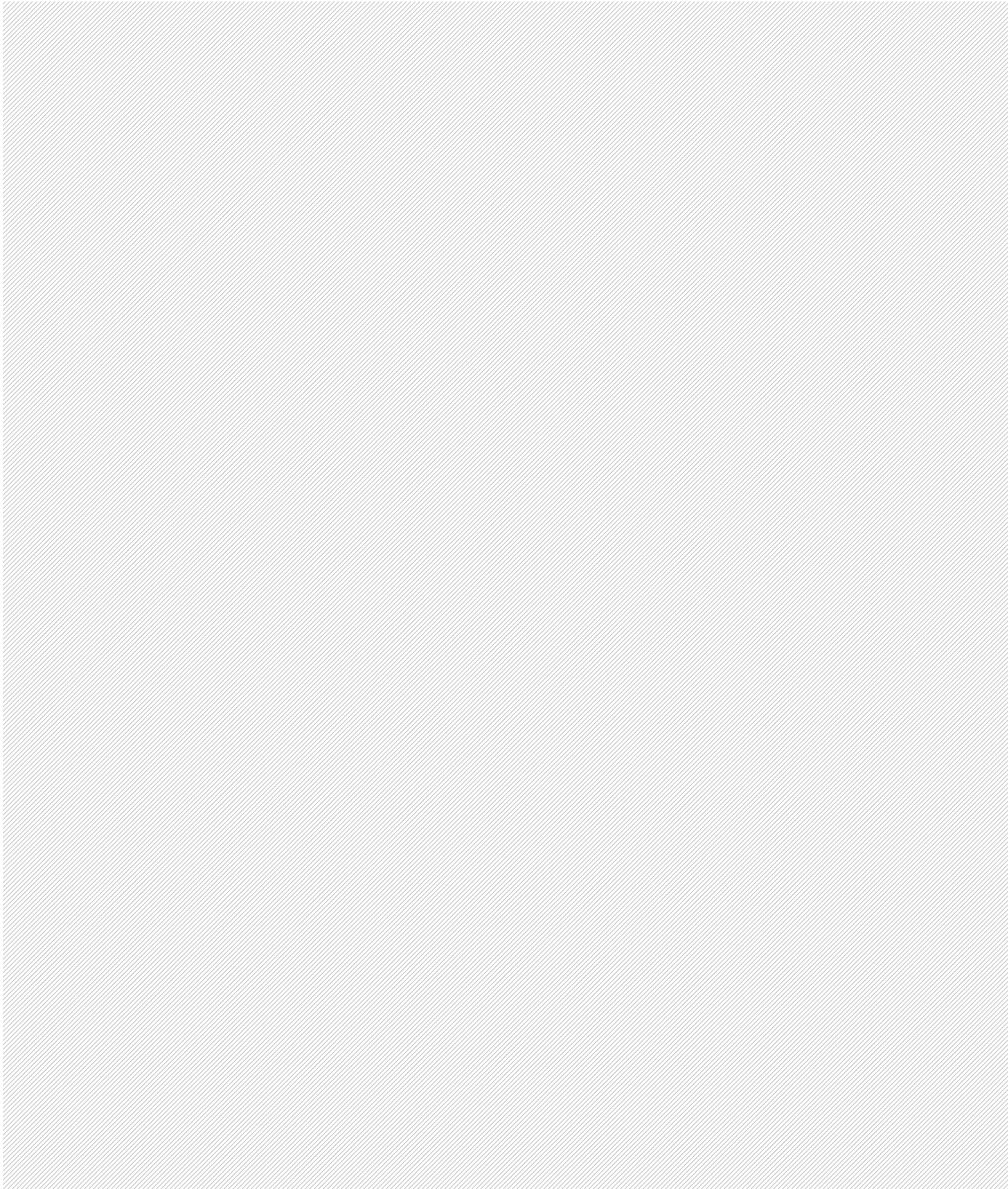
Airman 1st Class
Beatriz Neel
59th Medical Squadron

I ate eel at a sushi restaurant just to try it. I like it and I always order it now.



Capt. Jason Bishop
311th HSW/PA

I'd have to go back to college, because that's when most strange things happened. I'd eat tuna fish and brown sugar sandwiches.





Brooks
Personality
PROFILE



Photo by Staff Sgt. Brandy Bogart

IAPICHINO



FULL NAME:

Master Sgt. Vincent Iapichino Jr.

DUTY TITLE, ORGANIZATION:

Operations Superintendent, Air Force
Institute for Operational Health

IN SIMPLE TERMS,
WHAT DO YOU DO?:

Take care of enlisted issues for the Operations Directorate. Run the Self-Inspection, Report of Survey, and Operational Risk Management Programs. Develop and incorporate the Information Management Branch with the Knowledge Management Branch.

BIRTHDAY:

May 31, 1961

HOMETOWN:

Buffalo, N.Y.

FAMILY STATUS:

Married, wife Kathy, son Trey (21),
son Chris (19)

PERSONAL MOTTO:

"Be accountable for your actions"

PET PEEVE:

People not taking accountability and
looking to blame others

INSPIRATION:

My wife

HOBBIES:

Working around the house

I JOINED MILITARY SERVICE
BECAUSE:

It was the best job available at the
time

FIVE-YEAR GOAL:

Finish Bachelor's and Master's
degrees

ULTIMATE GOAL:

Retire from the Air Force and teach

MY MOST PRIZED POSSESSION:

The US flag presented to me for my
father's military service when he
passed away

IF I WON THE LOTTERY I'D:

Retire from the Air Force and travel
with my wife

A teacher at heart

By 2nd Lt. John Chattaway

311th Human Systems Wing Public Affairs

Most people can't wait to get out of school, but for one Brooks senior noncommissioned officer, he can't wait to get back there...to teach.

If you ask someone what their dream job would be, teaching is not usually at the top of the list. However, Master Sgt. Vincent Iapichino (pronounced YAP-uh-key-no), operations superintendent for the Air Force Institute for Operational Health, just wants to teach.

"I can teach anything," smiled Sergeant Iapichino. "Just give me a lesson plan and I can teach it."

So after all the experiences Sergeant Iapichino has had through his 22-year career, why does this Buffalo, N.Y., native want to eventually retire and teach?

Sergeant Iapichino was born and raised in Buffalo. When he was 15, his father's job took them to Mobile, Ala., where he would graduate from high school.

After high school, Sergeant Iapichino had no idea what he wanted to do. So he took a job as a manager at the local Pizza Inn. After a few years he went to work for Chuck E. Cheese's, where he would eventually meet his wife Kathy.

After they were married, his new father-in-law pushed him into pursuing a career in the Air Force. "I had no idea what I wanted to do," Sergeant Iapichino said. "My father-in-law spent eight years on active duty then joined the reserves before retiring as a master sergeant."

So Sergeant Iapichino enlisted in the Air Force and following basic training, went to tech school for Medical Administration, now known as Health Services Management.

"It's a good career field," he said. "It's very diverse. We do a lot of good things at clinics and hospitals."

His first assignment was to Eglin Air Force Base, Fla., where he worked in outpatient records. He would spend the next 22 years traveling the country and the world while raising two children, one of who will begin his Air Force career next month.

Of his 22 years spent on active duty, a little more than 10 years have been spent overseas in places such as Italy and Turkey. Yet he claims his best assignment by far has been as a military training instructor at Lackland AFB.

"Being an MTI was my most rewarding job," said Sergeant Iapichino. "You take 60 to 65 kids who have no idea what the Air Force is and in six weeks you turn them into Airmen. It was where I learned to enjoy teaching."

After his tour at Lackland, Sergeant Iapichino spent a remote tour at Osan Air Base, South Korea, before coming to Brooks.

While at Brooks, Sergeant Iapichino heard about the Ambassador program.

"I had talked to some past ambassadors who had done it and said it was a good time and a great experience," said Sergeant Iapichino. So he applied in November, 2004. He competed against several other applicants and was selected as the 2005 male Brooks Fiesta Ambassador.

"The Air Force has given me and my family so much over years, so I'm always looking for ways to give back," explained Sergeant Iapichino. "Being an MTI was a great way to give back and I saw being an ambassador for Brooks as another great way to give back."

And give back he did.

Over the 10 day Fiesta, Sergeant Iapichino and the 2005 female ambassador, Staff Sgt. Angelica Broner, attended 52 events including three major parades.

"One of my best memories from Fiesta was the river parade," said Sergeant Iapichino. "Out of 140 floats, there were probably seven military floats. People would be clapping as floats went by, but as the military floats came by the people would stand and cheer even louder. It really makes you proud."

Sergeant Iapichino also mentioned another event he remembers well. "It was at St. Mary's oyster bake and a kid

came running up to me yelling, 'Sergeant Iapichino, Sergeant Iapichino!' He pronounced my name right so I knew he had to know me, and it turned out to be an Airman from the first flight I taught at Lackland almost five years ago. It's just amazing the impact you can have."

One of the challenges Sergeant Iapichino faced as a Brooks ambassador was getting the word out about Brooks.

"Most of the people I talked to had no idea what Brooks did or that it was even still open for that matter," Sergeant Iapichino said.

He went on to add that San Antonio has often been described as a military town, but it's more than just having four military bases here. He explained that once you start talking to people around town, you begin to realize how much they appreciate having the military around.

But being an ambassador goes beyond Fiesta and is a year long obligation.

"I was doing a parade in Seguin for the Fourth of July and I thought to myself, 'what better way to spend the Fourth than to hang out at a parade in small town Texas,'" said Sergeant Iapichino with a smile.

The 2006 Fiesta Ambassadors will be chosen soon and Sergeant Iapichino has some advice for them. "First of all, have fun. If you're not having fun, you shouldn't be doing it. And second, be a positive representation of the Air Force. Don't be afraid to get out there and talk to people."

Sergeant Iapichino plans on staying in the Air Force until they force him into retirement. "I've never had an assignment I didn't like," said Sergeant Iapichino, who is currently eight classes from finishing his bachelor's degree in computer science from Park University. "After (earning a bachelor's degree), I want to get my master's degree and ultimately teach."

When asked what he'd like to teach, he shrugged his shoulders and replied, "Anything!"





AN AEROSPACE MEDICINE SERIES

ON THE CUTTING EDGE

Aerospace medicine helps bolster public health

(Editor's note: This is Part 10 of a comprehensive series that focuses on the enormous impact that Air Force vision and ingenuity has had in the development of lifesaving scientific medical advances and innovations whose legacy continues to benefit America's military and civilian community.)

By Rudy Purificato
311th Human Systems Wing

Two years before 'bird flu' first appeared in Asia, the Centers for Disease Control relied on Air Force virologists at Brooks to verify mutations in two samples of a flu strain in China. At stake was a potential epidemic that could be averted if only modifications to the vaccine were made in time.

"We verified the changes. Based on those two samples, changes in the vaccine's composition were made. That's when you feel like you have saved lives," said Linda Canas, Air Force Institute for Operational Health's virology section chief.

Ten years later as a potential avian influenza pandemic looms, aerospace medicine continues to play a vital role in supporting worldwide public health.

"The Air Force has stepped up worldwide avian flu surveillance," says Ms. Canas referring to the tri-service Global Emerging Infections System that tracks disease outbreaks and provides data needed to protect America's Armed Forces. Surveillance data at military testing sites is used to develop North American flu vaccines.

Earlier this year, an Air Force research scientist at the Armed Forces Institute of Pathology in Washington, D.C. made a discovery that could benefit vaccine development for the flu menace science calls Highly Pathogenic Avian Influenza (H5N1). "Dr. Jeffery Taubenberger had the idea several years ago that the

Spanish flu epidemic of 1918 was avian (in origin)," Ms. Canas said. His discovery added credence to the theory that bird viruses are directly linked to all human influenza outbreaks.

Such vision is part of the legacy of aerospace medicine whose founder, Dr. Theodore Lyster, became a public health pioneer in 1920 when he served on the U.S. Public Health Service's Yellow Fever Control Board. His work came full circle 45 years later when the Air Force Epidemiology Laboratory at Lackland AFB was directed by Air Force headquarters to manage the yellow fever eradication program. Now based at Brooks, the laboratory has since become part of a larger organization committed to helping resolve worldwide Air Force occupational and environmental health issues.

Air Force expertise in air, water and soil testing of potentially harmful contaminants contributed to the National Institute of Environmental Health Sciences to partner with Brooks AFB and University of Texas Health Science Center scientists in 1997. The collaboration focused on helping reduce the risk of environmental-induced diseases caused by chemical exposure.

"Many of the chemicals that are in the environment are the same ones encountered by the military on the battlefield or during peacetime. There are similarities between pesticides and chemical warfare agents," said Dr. Dave Erwin, the late Air Force scientist whose collaboration with Dr.

Johnathan Kiel has had a profound impact on public health.



An Air Force bioenvironmental engineer samples hazardous material, part of an on-going program to safeguard public health. Air, soil and water samples are analyzed at Air Force Institute for Operational Health laboratories.

These Brooks AFB scientists' initial directed energy research produced during the 1990s a major biomedical diagnostic breakthrough. They developed the Quantitative Luminescence Imaging System that today is used in cancer research. The device uses microwaves to find cell damage caused by radiation, viruses, bacteria and toxins.

Air Force directed energy research has also contributed to the International EMF Project, a World Health Organization initiative that studies electromagnetic radiation health effects.

"The Air Force has been aware of the need for radiofrequency radiation occupational health safety guidance since 1968. Since then, the primary focus of Brooks RFR research has been protecting not only warfighters from harmful emissions, but non-combatants as well," said Dr. Michael Murphy, Air Force Research Laboratory's RFR chief. Dr. Murphy's research group has contributed to new world human health and safety standards for electromagnetic radiation.

Air Force molecular biology research has had, perhaps, the greatest impact on global public health. Worldwide use of gene probe technology, featuring 'DNA fingerprinting' of microorganisms, is the result of groundbreaking work by the late Air Force scientist Ferne McClesky. This Brooks pioneer said, "The probes' development made it easier to identify these

organisms within 24 hours rather than 10 days."

Its significance is profound since most bacterial diseases, such as cholera and tuberculosis, are potentially fatal to humans. Food poisoning germs, including salmonella, staphylococcus and E.coli, also can not evade this probe technology's detection.

The worldwide AIDS scourge that has so far claimed more than 20 million lives was not the focus of an aerospace medicine study in 1995. However, the study produced an amazing discovery that contributed to scientists today having developed a possible cure.

Ten years ago Air Force researchers at Brooks had been exposing cancer and HIV infected cells to ionizing radiation. "We discovered that nitrated proteins cause a piece of the (dormant) HIV virus to be activated," said Dr. Kiel.

The research group, including scientists from the University of Texas Health Science Center, established a link between nitrated proteins, a chemical 'explosive' caused by inflammation, and HIV's re-emergence in cells damaged by infection.

Dr. Kiel explained that two protein 'switches' somehow activate or open two key signal transduction systems,

known as pathways, that signal information to cell nuclei. One switch is associated with the immune system, the other stops cell growth. "The HIV virus tries to operate when both protein switches have activated the two pathways," Dr. Kiel said.

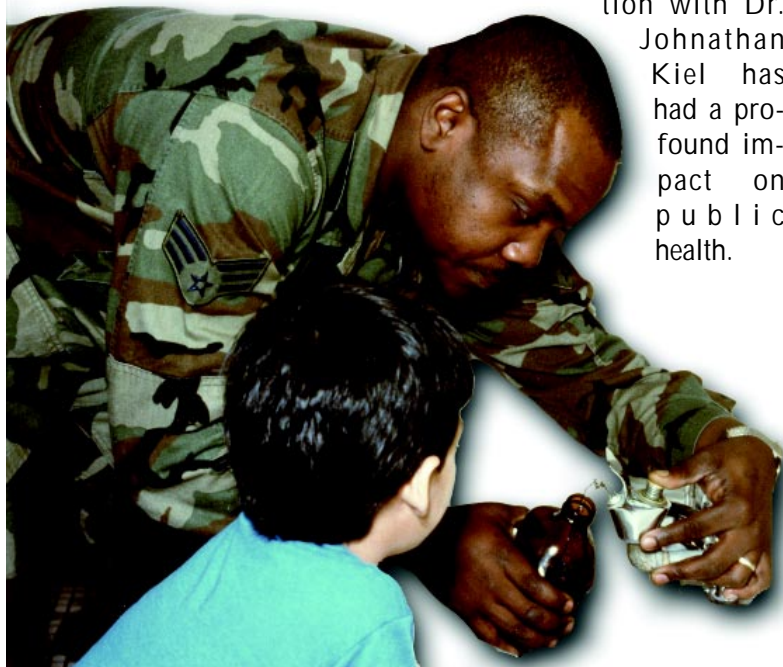
This breakthrough observation contributed in 2005 to AIDS research being conducted at the Gladstone Institute for Virology and Immunology at the University of California - San Francisco.

The research team is using the anti-convulsant drug valproic acid to attempt awakening and transforming the AIDS virus into a curable infection.



Air Force photos

A Brooks epidemiology lab technician examines a chemical sample during routine analysis of potentially harmful disease-producing micro-organisms.



Part of the lead assessment program, a bioenvironmental engineer technician collects a water sample from base housing while a dependent looks on.



BROOKS BRIEFS



Airmen's Cookie Drive

It's time to start planning for the annual Airmen's Cookie Drive. Show support for the troops by providing baked goods that can be wrapped individually. Teens will deliver the "goodies" Nov. 16 to the unaccompanied Airmen in the dormitories that are away from home, some for the very first time. Let's make them feel an important part of the Brooks City-Base family. Baked items should be delivered to the Youth Center on Nov. 15 to be prepared for delivery. Pick up a form in advance, fill it out and drop off at the center. This will enable the staff to better plan on the total number of baked items to be delivered.

Fall Day Camp

For youth ages 5-12 who have the week of Thanksgiving off, Fall Day Camp will be Nov. 21-25 from 6:45 a.m. to 5:00 p.m. Breakfast, lunch and snacks will be provided for camp attendees. The camp will include arts and crafts, music, computer time, outdoor play, a field trip plus cooking project. Fees are determined by total household income. Come and join in on the fun!

Fit Factor: Youth Fitness Program

Fit Factor is a fitness program for youth, ages 9-18 years. The theme is "Get Up, Get Out, Get Fit." Visit the Youth Center to enroll your children. Collect a prize just for committing to "Get Up, Get Out, Get Fit." Once a child commits to the program he or she can go online, choose activities and log points. Youth who complete five exciting levels earn great items. Participate for a chance to learn new skills, get fit and win prizes.

Family and Teen Talent Contest

The Youth Programs Center is hosting the 2005 Family and Teen Talent Contest Nov. 10 at 6:30 p.m. in the Brooks Club. Contestants can enter in the following categories: Parent and child team, husband

and wife team, children (ages 3-5 and 6-8), preteen solo (ages 9-12), preteen group (ages 9-12), teen solo (ages 13-15), teen group (ages 13-15), teen solo (ages 16-18) and family. Contact the YPC at 536-2515 for more information.

Stars and Bars 2005

Stars and Bars 2005, a joint-service multi-base dining-in, will take place Nov. 18 at the Randolph O'Club from 6 to 10 p.m. All San Antonio company grade officers are invited to attend. The theme of the event is "A Heritage of Leadership" and the guest speaker is Maj. Gen. Gilmary Hostage. The cost is \$25. To purchase tickets, contact Capt. Kristen Templett at 652-7840.

CFC Golf Tournament

In an effort to raise funds for the Combined Federal Campaign, there will be a golf tournament at the Brooks Golf Course Nov. 18. The fee is \$30 and the tournament will follow a four-person scramble format. There will be a complimentary barbecue and awards ceremony following the tournament. Contact a CFC representative to register for the event.

Youth Basketball Registration

Registration for youth basketball is underway and will continue until the program is filled. Youth ages 5-18 years may register. The fee is \$35 for Youth Programs Center members and \$52 for non-members.

Volunteers Needed for Tax Center

The Brooks Legal Office operates a tax center during tax season, relying on volunteers to help prepare tax returns. The Brooks Legal Office offers free training to military members, retirees and civilians interested in learning about taxes and volunteering at the Tax Center. Contact Capt. Nick Doukas or Capt. Rhea Lagano at 536-3301 for more information or if you would like to volunteer.



Great American Smokeout: Kicking ‘butts’

Brooks joins forces with ACS in effort to crush smoking habit

By Elizabeth Castillo
Discovery writer

Brooks City-Base is joining the American Cancer Society in a nationwide campaign designed to help smokers kick the habit.

The annual ACS Great American Smokeout will be observed Nov. 17 in an effort to help Americans quit their smoking habits for at least one day, in hopes of them quitting for good.

“For the participant, use of this day helps study one’s smoking habits and identify resources needed to help the individual quit,” said Capt. Cynthia Pouncey, health promotions director at the Health and Wellness Center. “Quitting for the day helps raise one’s awareness of their smoking behavior, triggers and barriers.”

According to the ACS website, the idea for the Great American Smokeout came from a 1974 event organized by Lynn Smith, editor of the Moticello Times in Minnesota.

Initially called D-Day, or Don’t Smoke Day, the idea of having smokers quit for a day caught on, and Nov. 18, 1976 the California Division of the ACS was able to encourage almost one million smokers to quit for the day. In 1977, the Society took their efforts nationwide and has continued to help smokers quit throughout the years.

In order to assist the ACS in its efforts, and to offer support to those on Base who want to quit, the Health and Wellness Center is offering free “Commit to Quit” kits that will be given away one week before the event from Nov. 9 until the day of the event.

The kits include a keychain stress ball, lollipop, mint, gum, a pocket guide with informational tips on how to curb cravings and relieve stress, and a bright yellow rubber band to be worn on the wrist of the participant to help remind them to quit.

Along with the HAWC’s “Commit to Quit” kits, all Brooks personnel participants can sign up for the monthly tobacco-use cessation program called Quit-Smart.

The Quit-Smart program was developed by Dr. Robert Shipley, director of the Duke Medical Center Stop Smoking Clinic. The Quit-Smart program offers many helpful tips and methods to help smokers achieve their goal of kicking the habit forever.

“Other programs often have you reduce the amount of cigarettes smoked,” said Captain Pouncey. “But all that does is make the cigarettes that you have left more valuable, more desirable and harder to quit.”

Instead of asking smokers to lessen the amount of cigarettes smoked, the Quit-Smart program promotes brand switching. Brand switching asks the participants to switch the type of cigarette they usually smoke to a brand that they do not enjoy, therefore making smoking less pleasurable.

Along with brand switching, classes offer relaxation methods, smoking substitutes and the means necessary to quit smoking.

“It’s up to the person. We give them the tools, but it truly is up to them,” said Captain Pouncey. “We teach them coping techniques and there is some relaxation therapy involved in it.”

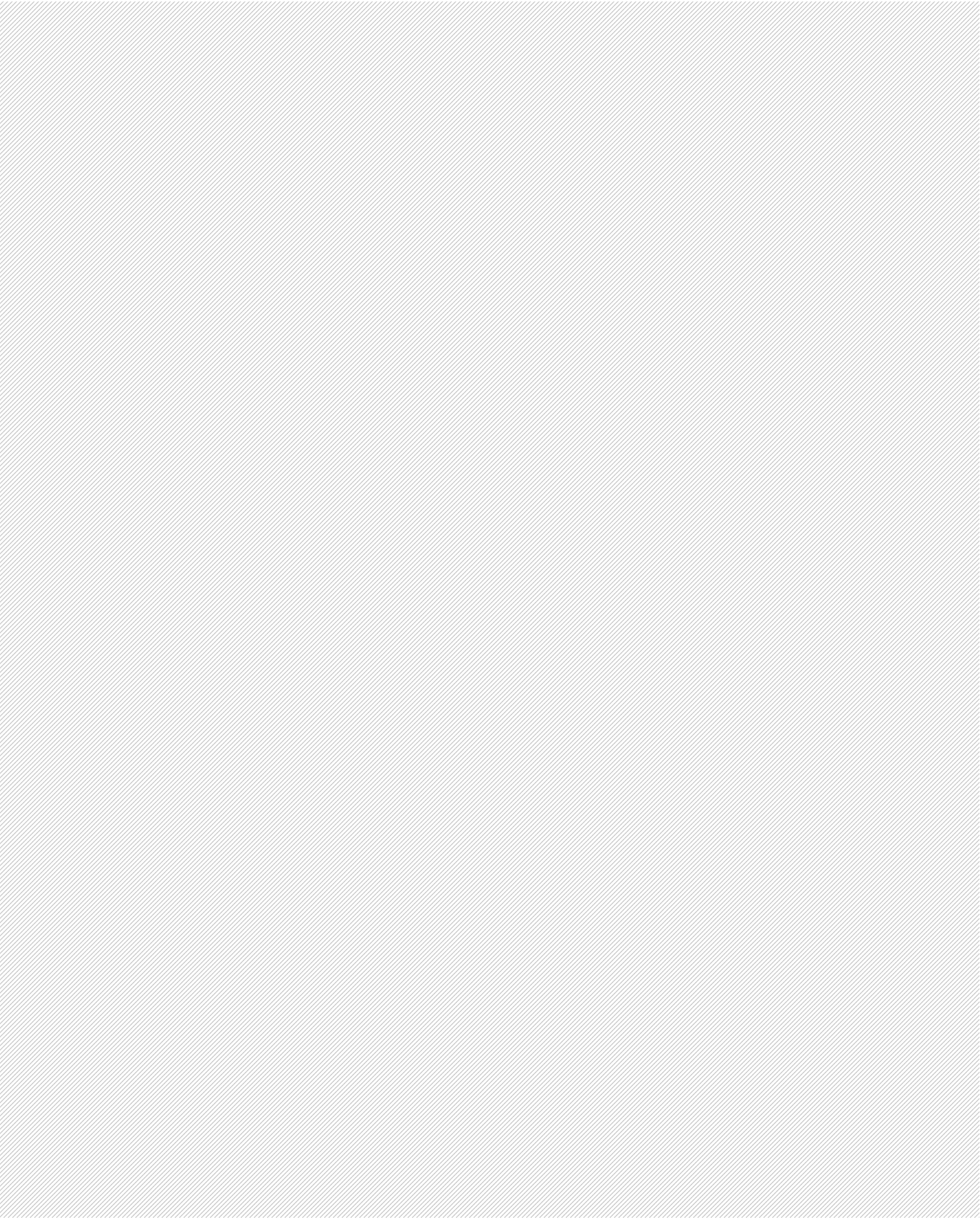
The observance of the Great American Smokeout can be the start for many Brooks personnel to quit their smoking habits. Together with the help of the “Commit to Quit” kits, and the Quit Smart program offered at the HAWC, smokers wanting to quit can find the tools and support they need to be successful.

“The Quit Smart philosophy is that success depends on a firm personal decision to quit, and a willingness to try new thoughts and behaviors,” said Diane Gonzalez, nurse coordinator for the civilian health promotion service. “Without that, you won’t be successful.”



Six tips to help you stop smoking

- Write down why you want to quit and the benefits of quitting.
- Find something to hold in your hand and mouth, to replace cigarettes, like gum, straws or toothpicks.
- If you can't quit cold turkey, set a quit date and quit gradually.
- Seek help -- from family, friends, doctors, counselors, religious leaders or anyone else who will support you.
- Begin an exercise program.
- Drink lots of water and do deep breathing exercises daily.





Brooks lab aids in avian flu watch

By Rudy Purificato
311th Human Systems Wing

A Brooks City-Base epidemiology laboratory is working to develop more effective and timely methods for detecting avian flu that supports a worldwide Air Force surveillance program designed to safeguard American military personnel from a potential outbreak.

The Air Force Institute for Operational Health's Epidemiology Division is at the forefront of an Air Force initiative to create more reliable and faster testing procedures for H5N1, the influenza virus that scientists believe has spread from birds to humans across three continents.

"We're developing assays (DNA testing) to rapidly screen for avian flu," said Maj. David Eddington, a molecular biologist who is the AFIOH Epidemiology Division's microbiology chief. He said Air Force scientists began the process this year of developing new technology to detect avian flu. The new assay uses polymerase chain reaction (PCR) technology. Additionally, the organization is capable of performing molecular sequencing of the viral genome which helps detect mutations.

Since first appearing in Asian poultry in 1997, the Highly Pathogenic Avian Influenza as it is scientifically known, has mostly killed people who have been in direct contact with domesticated fowl. This deadly respiratory strain has become zoonotic (jumping from non-human host to people), leading to the first reported human death in 1997 in Hong Kong. Scientists fear that its transmission between humans could trigger a pandemic.

To do that, it would have to mutate. During the last century, mutations in influenza viruses caused pandemics that killed millions of people in 1918, 1957 and 1968. For avian flu to become pandemic, it would have to mix its genes with those from the naturally circulating flu 'A' strain to transform so that it becomes easily transmissible from human to human.

Influenza viruses are known to transform with some frequency. This is why surveillance exists to determine which strain is best for the current vaccine.

"With the influenza virus, two different mutations called 'shift' and 'drift' exist," said Major Eddington. He said the drift mutation process involves a small nucleic acid variation that occurs after the virus invades a cell and during replication of its nucleic acid genome. Shift mutations, however, involve larger genetic segments and can occur in naturally circulating flu 'A' strains.

"The problem (leading to potential pandemics) is someone infected with a normal circulating flu 'A' strain is (also) co-infected with avian flu," Major Eddington said. The co-mingling of virus strains creates conditions for gene sharing. This occurs after an infected cell produces gene segments from both strains and they mix together during the process called self assembly. During this process, the virus mutates into a new variation in which humans have no immunity.

"The Air Force has stepped up worldwide avian flu surveillance that includes research sites in South America and Thailand," said Linda Canas, Chief of AFIOH's Virology Section. Since 1997, the Air Force has been executive agent for the laboratory-based Global Emerging Infections System.

This tri-service system relies on a network of global sentinel (early warning) sites, Ms. Canas noted. "Our surveillance data is shared with the Food & Drug Administration's Vac-

cine and Related Biological Products Advisory Committee," she said.

This information is compared with other surveillance information and used to develop North American flu vaccines. Typically, flu vaccines are composed of two 'A' strains and one 'B' strain. All flu vaccines and anti-flu prescription drugs, such as the FDA-approved prophylactic Tamiflu, are made overseas.

Air Force scientists know that current flu vaccines offer no protection against avian flu. Ms. Canas said, "We have very little information on the use of Tamiflu. The only thing that it seems to help is morbidity (onset of illness). We don't know how it will affect mortality."

Air Force Institute for Operational Health technicians in the virology laboratory test samples of influenza strains. The data is shared with other federal agencies and used in the development of new vaccines.



Photo by Tech. Sgt. Alfonso Ramirez Jr.



Diablos defend title, win Brooks hoop tourney

By Rudy Purificato
311th Human Systems Wing

The city league San Antonio Diablos won their second consecutive L.C. Artis Basketball Classic championship by defeating Lackland Air Force Base 97-95 Sunday at the Brooks Fitness Center gym.

Ten teams competed in this third annual, double-elimination tournament that is named in honor of former Brooks Sports Advisory Council chairman Lt. Col. (Ret.) L. C. Artis. The three day tourney served as the official pre-season for members of the Southwest Military Basketball League.

The new-look Brooks men's varsity team overcame a disappointing 92-69 loss to Altus AFB in the opening game of the tourney to finish with a 1-2 record.

"We couldn't stop their big man," Brooks coach Damion Byrd said, referring to Altus AFB rookie power forward Karlos McMahon, who scored a game-high 42 points.

The Brooks squad, composed mostly of rookies, has a distinct height disadvantage this year. It was evident throughout the tournament, although the team used its speed and perimeter shooting to stay competitive.

Colonel Artis, who watched every game of the tourney, char-



Photo by Staff Sgt. Brandy Bogart

Despite a 1-2 record at the L.C. Artis tournament, the Brooks varsity basketball team has come together and is optimistic about the regular season.

acterized the Brooks team's early play as inconsistent. "They're a new team, a little unsure of what to do and where to be," he said. Nevertheless, he was optimistic about their future, noting, "They just need to get their confidence."

That they did in their second tourney game against Little Rock AFB. "We were down by nine points in the second half, but we held it together and came back to win 70-53," Coach Byrd said.

The Brooks offense caught fire in the second half as they went on a 40-14 run, while their defense stopped Little Rock from mounting a comeback.

Brooks was eliminated in their third game when it dropped a close contest to Laughlin AFB, 57-54.

They begin the regular season this weekend at Lackland AFB with a two-game series Nov. 5-6. Brooks' home opening series will be against Laughlin AFB Nov. 12-13 at 1 p.m.

Falcon pride on the line in military academy showdown

U.S. AIR FORCE ACADEMY, COLO. — One by one, goals for 2005 have come and gone for the U.S. Air Force Academy football team. A Mountain West Conference title, reclaiming the Commander-in-Chief's Trophy and a bowl appearance are all history.

But the Falcons hope to salvage a disappointing season with a victory over Army. The teams face off Saturday in a military academy showdown in Falcon Stadium, when Air Force wraps up its home schedule against Army.

The Falcons are 3-6 heading into the game against the Black Knights and look to rebound from back-to-back blowout losses. Two weeks ago, the Falcons lost 48-10 to nationally-ranked TCU, a game that head coach Fisher DeBerry would like to soon forget, not only for the final score but for his post-game racially insensitive comments that shoved him in the national spotlight.

A winning season got even smaller in their rear view mirror thanks to a 62-41 conference beating by Brigham Young University Oct. 29 before a

crowd of 57,687 at Lavell Edwards Stadium in Provo, Utah.

The loss guaranteed the Falcons their second straight losing season with two games remaining in the regular season. It's the first time Air Force will experience back-to-back losing seasons during DeBerry's 22-year stint as head coach. It'll be just the fourth losing season in the DeBerry era.

"It's not about me," a disappointed DeBerry said. "I told our kids in the locker room I really bleed for them. They've worked hard in practice. Their intensity level and effort deserve better."

The Falcons performed well enough, offensively, to beat the Cougars. Air Force compiled 479 yards in total offense. The 41 points were second only to the 42 scored in their win against the UNLV. No Falcon ran for more than 44 yards in the game, but nine players rushed for double-digit yardage.

Overshadowed by the loss was an Academy-record five touchdown passes thrown by backup quarterback Adam Fitch. The senior signal caller

was pressed into service after right-handed sophomore starter Shaun Carney had to leave the game with a cut on his left palm that required stitches. Fitch was 13 for 24 with 265 yards and became the first Falcon to toss four touchdowns in a game since Mike Theissen achieved the feat against BYU in 2000.

"We were in a desperate situation, so we had to react to what was happening," Fitch said. "Throwing five TDs in an option scheme is pretty remarkable."

The Air Force defense, ranked eighth in the nine-team conference, was another story. BYU rolled up 683 yards, the most against Air Force



Air Force photo

The Air Force Academy football team looks to rebound from consecutive blowout losses when it faces military academy rival Army Saturday at Falcon Stadium.



Photo by Staff Sgt. Brandy Bogart

BROOKS VARSITY BASKETBALL 2005-06 Schedule

Nov. 5	at Lackland AFB
Nov. 6	at Lackland AFB
Nov. 12	Laughlin AFB
Nov. 13	Laughlin AFB
Nov. 18	Goodfellow AFB
Nov. 19	Goodfellow AFB
Dec. 3	at Dyess AFB
Dec. 4	at Dyess AFB
Dec. 17	Lackland AFB
Dec. 18	Lackland AFB
Jan. 7	at Goodfellow AFB
Jan. 8	at Goodfellow AFB
Jan. 21	Dyess AFB
Jan. 22	Dyess AFB
Feb. 4	Fort Sam Houston
Feb. 5	Fort Sam Houston
Mar. 11	at Ft. Sam Houston
Mar. 12	at Ft. Sam Houston
Mar. 18	at Laughlin AFB
Mar. 19	at Laughlin AFB
Mar. 29-Apr. 6	Championship playoffs at Randolph AFB

Home games in bold

Brooks guard Donald Poole slashes his way to the hoop.

68th IOS wins intramural league flag football crown

By Rudy Purificato
311th Human Systems Wing

Capitalizing on the agility and flag football savvy of key veterans, the 68th Information Operations Squadron's 'A' team won the Brooks City-Base intramural league championship last week. They begin their quest this week for the base title as the number one seed in the postseason double elimination tournament that concludes Tuesday.

Guided by veteran coach Reggie Smith, the 68th IOS 'A' squad won the league crown with a 5-0 record. "We gave up only two touchdowns all year, one to YA (Human Systems Group) and the other to the 68th (IOS) 'B' team," recalls Coach Smith. He attributes the team's success to a core of veteran players who were on the 68th IOS's 2003 base championship team.

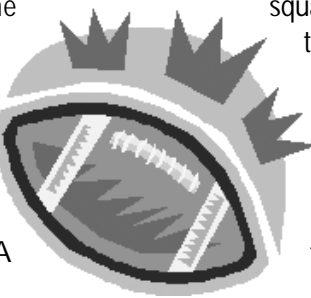
"We've had a core of guys who've played together for three to four years. While the 2003 championship team was a little stronger, this team has experience," he admits. Topping Coach Smith's list of key

players is wide receiver/free safety Paul Robinson who had 11 interceptions and six touchdowns during the regular season. Also contributing on offense were veteran quarterback Tim Heggedahl and half-back Blake Socin. The team's defensive leaders feature linebackers Roddey Hartsook and Rich Martinez.

Despite their success, Coach Smith predicts a tough battle for the base championship with the league's other top squad – the 68th IOS 'B' squad. "They're going to be hard to beat. We beat them 7-6 in the regular season, but they have raw talent and are very fast," he said.

Led by first-year coach Brooke Boblett, the 'B' squad is seeded second in the post season tourney on the strength of their 4-1 season record. "They gave up only three or four touchdowns during the season, including one to us," Coach Smith said.

The 'B' squad's key players include quarterback Jared Barr, safety/wingback Andre Williams and middle linebacker Chaunce Foster.



FINAL LEAGUE STANDINGS

68th IOS 'A'	5-0
68th IOS 'B'	4-1
AFRL	1-2
MSG	1-3
HSG	1-3
USAFSAM	0-3

since 1988. Cougar quarterback John Beck completed 31 of 43 passes for 383 yards and three touchdowns. Running back Curtis Brown had career highs with 219 yards rushing and four touchdowns. The 62 points is the most scored by BYU since it beat Air Force 63-33 in 2001 and

the most given up by the Falcons this season.

Although the Falcons are already out of contention for the coveted Commander-in-Chief's Trophy – they lost to Navy earlier this season – a victory over Army would go a long way towards healing.